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GUARERE SCHIAL HETTERDS



a child's eye-view of meat inspection

PANELS "SHOW 'N' TELL" Meat & Poultry Facts



and concise message, a new set of tabletop exhibit panels can help consumer education leaders explain inspection, buying, and care of meat and poultry products to consumers.

Ten individual panels, each measuring 15-by-20 inches, provide consumers with information on:

- The role of Federal and State cooperative inspection in helping assure clean, wholesome products,
- How an understanding of labeling rules and standards can help the consumer make intelligent, economical selections, and
- Tips for keeping meat and poultry products wholesome all the way to the table.

Panels in the set tie in directly with five USDA consumer leaflets, with matching titles: "Meat and Poultry—Wholesome for You" (G-170); "... Standards for You" (G-171); "... Labeled for You" (G-172); "... Clean for You" (G-173); and "... Care Tips for You" (G-174).

The panels are joined by removable hinges, so they can be used individually as posters or teaching aids on a wall or easel. When set up endto-end as a tabletop exhibit, the panels require a 10-foot table.

The set is intended for use primarily by home economics teachers, Extension food and nutrition specialists, and those who impart food buying and handling information to low-income groups.

Information on availability of the set may be obtained from Information Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Consumersdo you know?

When cooking a big bird, you should cook it completely, never partially to finish cooking later. It is safest to cook dressing outside the bird, but if you want to stuff it, do so right before roasting.

Don't stuff raw poultry and then refrigerate or freeze it. Commercially stuffed frozen poultry should always be cooked without thawing, U.S. Department of Agriculture poultry inspectors advise, to assure continued wholesomeness.

Cold temperatures are vital in keeping meat and poultry products wholesome. Always keep meat and poultry in the coldest part of your refrigerator, which is usually near the ice-cube compartment or in a special meat keeper. Freeze meat and poultry products if you won't be using them within a few days. In this way you can continue to safeguard at home the wholesomeness USDA inspectors helped assure in the packing plant.

For more tips on caring for meat and poultry in your home, write for "Meat and Poultry—Care Tips for You," G-174, Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. It's free!



what generation geg

IKE GROWN-UPS, kids are interested in wholesome foods. Dr. Joseph L. Blair, a veterinary medical officer with the U.S. Department of Agriculture's Consumer and Marketing Service in St. Paul, Minn., found that out when he spoke on Federal meat and poultry inspection to a sixth grade class at McCarron's Lake Elementary School in St. Paul.

He explained that Federal inspection is required in all plants that sell products across State lines, that equipment and facilities in those plants must be sanitary, and that poultry and livestock, as well as processed foods, are checked for wholesomeness. He also showed the children what to look for on a label which meets USDA standards of accuracy.

It was a successful effort. The children responded enthusiastically to the new information—like the prospective consumers they are. Some of their intelligent and imaginative reactions are reproduced here.

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Dear Dr. Blair.

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The Average consumer sitting down for a pleasant evening meal of meat or poultry has never heard of a spectrophotometer or an "auto analyzer."

But these scientific devices are important to the meat and poultry inspection program handled by the Consumer and Marketing Service of the U.S. Department of Agriculture. They're among the many invaluable tools and instruments used in C&MS laboratories that back up the inspectors and veterinarians in the packing and processing plants.

Inspectors in the plants send meat samples to the laboratories regularly for routine analysis, as well as for specific testing in order to determine fitness of given animals or products. Since the inspector's hands and eyes can detect only so much, the laboratory serves as his unseen partner in keeping unfit meat or poultry from leaving the packing plant.

C&MS operates seven regional laboratories which handle routine analyses, such as the fat, water and protein content of cooked sausages. But these laboratories also have the sophisticated equipment and technicians necessary to detect even minute traces of various chemicals. An eighth C&MS laboratory in Beltsville, Md., handles microbiological and pathological analyses.

The increase in meat production over the years has increased the inspection burdens. Scientific advances have brought into use many new drugs and feed additives which the inspection program must be able to detect as a further test of product wholesomeness. These advances have necessitated development of equipment and techniques capable of measuring these additives in parts per billion.

Scientists in the C&MS laboratories

LABS-CATALYSTS TO MEALTIME SAFETY

8

By O. L. Bennett

work to keep pace with both the increased inspection workload and the need to detect new additives in samples sent in by the inspectors.

An inspector in the field may occasionally notice certain symptoms in an animal before it is slaughtered. Blindness in an animal, for example, may be caused by chemical poisoning. The inspector, in determining if the animal's meat would be safe to eat, would send a tissue sample to a chemistry laboratory for analysis.

For tests such as this, C&MS uses an atomic absorption spectrophotometer through which certain elements can be extracted from a meat sample and measured.

This technique and the equipment used to apply it make testing for these elements possible in one procedure, instead of three as was necessary before, and in much less time.

Another important time saving device is the "auto analyzer." This apparatus was especially necessary to meet the increasing demand for analyses of cooked sausage products, such as frankfurters.

Specifically, this device determines the amount of nitrogen in a product. The nitrogen level is used to calculate the protein content, which in turn can be used to calculate the amount of added water in the product. In this way the laboratory can check compliance with the 10 percent limit on added water in federally inspected cooked sausages.

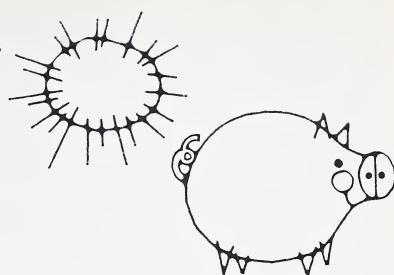
The auto analyzer can do the testing twice as fast as the old equipment, with less personnel.

C&MS is planning to connect its scientific instruments to computers which will take information from the instruments, make various calculations and print out the results. Thus the computers will take over routine tasks now performed by laboratory personnel, eliminating the chances for human error in computations.

Increasing the productivity of laboratory manpower by automation programs is one way to provide more effective consumer protection at a lower cost to the public.

The author is Head, Chemistry Group, Laboratory Branch, Technical Services Div., C&MS, USDA.

COMING UP: CERTIFIED COUNTRY HAMS



By Dr. Robert D. Furrow

ONNOISSEURS OF THOSE specially dry-cured, country hams will soon know that these products are federally inspected and trichinosis-safe, through a new laboratory program being set up by the U.S. Department of Agriculture.

Traditionally, these hams have been turned out by small-scale country processors, primarily located in Virginia, West Virginia, Kentucky and Tennessee. Most of the business of these firms is transacted through the mail to devotees of these prized hams throughout the country.

Until passage of the Wholesome Meat Act, these small firms were exempted from Federal inspection as long as they sold directly to the individual consumer rather than through retail outlets.

But the 1967 law requires that these firms be federally inspected if any of their sales are in interstate commerce. About 100 firms, each processing about 1,000 hams per season, are expected to come under Federal inspection.

Because pork is susceptible to trichinosis, Federal meat inspection regulations require that these dry-cured hams be exposed to certain temperatures for extended periods of time to kill any trichinae parasites.

Ordinarily, a Federal inspector would have to closely supervise this heat curing to make sure the regulations were followed. Because of the number of these small firms and because nearly all of these hams are cured between early October and mid-March, there would be a heavy demand for Federal inspectors during the curing season.

Specialists in USDA's Consumer and Marketing Service therefore devised a program which would certify these hams as "trichinosis safe" without requiring the continued supervision of an inspector during the curing-drying process. This new program will be put into effect by C&MS during the 1970-71 curing season. C&MS is the agency which handles the meat and poultry inspection program.

A 10-gram sample from each ham will be sent to a laboratory set up to conduct the trichinosis tests. The laboratory will then implement a recently developed "pooled sample digestion technique."

Samples from 20 hams will be mixed together, digested in a chemical solution, and examined microscopically for trichinae. If no trichinae are detected, the 20 hams will be considered trichinosis safe. If trichinae are detected, additional samples from each of the 20 hams in the lot will be individually tested to determine which contains the harmful parasite. Any infected hams will be discarded.

Processors of these tasty hams frequently protect the details of their curing formulas with deep secrecy. Generally, the first step is hand rubbing a 20-pound fresh ham with a mixture that includes salt, sugar, black pepper, and other curing agents. The hams are then stored at about 40 degrees for about 40 days in bins or

barrels to absorb the salt mixture.

After this 40-day curing, the excess salt mixture is washed off and the hams are smoked for about 2 days. For the smoking, the processors build a fire of hickory logs or other hardwood in the room with the hams.

After the smoking, the hams are generally covered with a layer of black pepper and hung to dry at room temperature for an additional 30 days.

Scientists have determined the length of time the hams must be exposed to a given temperature in order to kill any trichinae in pork. Pork brought to an internal temperature of 137 degrees is safe to eat. But with lower temperatures the heat must be applied for longer time periods.

By itself, the smoking of these country hams is not sufficient to kill trichinae since the temperature usually reaches only 80 degrees. For instance, a 20-pound ham, after being treated with salt and smoked at 80 degrees for 2 days would have to be held at not less than 45 degrees for at least 20 days to kill all trichinae.

Without the new ham certification program, Federal inspectors would have to spend considerably more time in making sure the temperature and time guidelines were followed. The new program, therefore, can provide consumers with adequate protection at minimal cost.

The author is Head, Pathology Group, Laboratory Branch, Technical Services Div., C&MS, USDA.



Market News-Pulsebeat of the Market

HAT is MARKET NEWS? Why is it needed? Who provides it? When is it provided? Where can you get it?

These questions—and the answers to them—form the basis for a new table-top exhibit now available for use at meetings, fairs, conventions, and any place the audience would have an interest in and a need to know about market news.

Market news—up-to-the-minute reports on prices, supply, and demand for farm products—is provided by the U.S. Department of Agriculture's Consumer and Marketing Service in cooperation with State departments of agriculture.

A force of 238 Federal and 106 State reporters daily interview buyers and sellers, or observe actual transactions, to gather factual information for their reports. Their reports—more than 265,000 of them each year—are distributed across the Nation through USDA's leased teletypewriter system. The reports are then made available to the public by cooperating newspapers, radio and television stations, automatic telephone answering devices and trade publications. Printed reports are also available by mail.

The market news service is truly a cooperative service, involving not only Federal and State governments but also the buyers and sellers of farm products. Without the cooperation of farmers, traders, and marketing and

processing firms, who provide information to market news reporters, it would be impossible to conduct a market news service. The service, really, is a cooperative pooling and sharing of information among those concerned with the marketing of farm products.

This information on the "what, why, who, when, and where" of market news is contained in outline form in the new table top exhibit.

The exhibit consists of a dozen 15 x 20 inch cardboard panels which are lightweight, compact, and inexpensive. They take little room to store and are easy to ship and set up.

The panels can be set up on a sixfoot table and can be assembled in a variety of ways, to suit the space available. They can be joined together with removable Velcro hinges which come with each set. Plastic strip hinges are provided with each set to make it possible to join tiers of the panels vertically. Two or three tiers can be formed.

Sets of panels have been placed in all major market news field offices and in the C&MS regional Information Division offices. They may be borrowed by Cooperative Extension Service personnel and other interested groups from any of these offices, or from the Information Division of C&MS in Washington, D.C.

Pamphlets containing information on market news may be obtained to use in conjunction with the table top exhibits. Currently available are:

Federal-State Market News Reports—A Directory of Services Available (C&MS-21),

The Federal State Market News Service (MB-40),

Market News Service on Cotton (MB-41),

Market News Service on Fruits and Vegetables (MB-39),

Market News Service on Grain (MB-44),

Market News Service on Dairy and Poultry Products (MB-42),

Market News Service for Tobacco and Naval Stores (MB-43), and

Market News Service for Livestock, Meat, and Wool (MB-50).

To get copies, write: Information Division, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

Requests for borrowing the table top exhibit may be sent to the same address. To borrow a set from the Information Division regional offices or market news field offices, look in telephone directories under the heading of U.S. Government, U.S. Department of Agriculture, Consumer and Marketing Service.

Market news offices are listed under specific commodity division headings, such as Livestock Division, Poultry Division, Grain Division, Fruit and Vegetable Division, etc.

an anniversary is perhaps the truest precord of human events. South St. Paul, Minnesota, celebrates its 50th year in the reporting of livestock market news under the Federal-State Market News Service this October 6.

The South St. Paul office in many ways typifies—and has led in—the growth and the development of all livestock market news. So this anniversary means more to the people involved than congratulatory messages. It gives them an opportunity to feel satisfaction and pride as they review the contributions this office has made to the status market news has achieved in the livestock and meat industry.

The need for market news grew out of an urgent situation within the agricultural industry that, in 1913, inspired the U.S. Department of Agriculture to create the "Office of Markets and Rural Organization." Producers felt that they were losing independence to the power of the marketplace, specifically to the market agencies handling their products. Their interests, they claimed, were unrecognized. Products did not realize a fair return and morale was low. So, for the first time in its half-century of existence, USDA extended its sphere of activities from production to distribution.

It was into such a changing world, and because of it, that the South St. Paul office was born on November 1, 1917. At that time, however, it was not rightly a "market news" office, as daily reports were not yet issued. South St. Paul's immediate purpose was as a clearinghouse of information and data for the meat trade.

With the declaration of World War I, emergency funds were provided to expand necessary national services. The market news service's leased telegraph wire was considered one of these and, early in 1918, this facility was added to South St. Paul's existing services.

It was during the period following World War I, when it was "over, over there," that the future of the South St. Paul office was largely written into the history of livestock market news.



By Roy H. Rockenbach

The end of the war on November 11, 1918, meant the end of emergency funds, and the discontinuation of leased wire services west of Kansas City and south of the St. Louis National Stock Yards. But South St. Paul emerged from this period of readjustment to peacetime operations as one of the first markets to be furnished permanent livestock market coverage. The reporting service became part of the Federal-State Market News Service in October 1920, when an office was opened in cooperation with the Minnesota Department of Agriculture.

Who can say whether these beginnings would have been quite so promising or the succeeding years so fruitful without the men who pioneered the market news effort in South St. Paul?

Don Slater was there in charge of the office when it all began in 1920, with his young assistant from the Minnesota Department of Agriculture, A. B. Smeby. In 1923, Mr. Smeby assumed the top spot in the South St. Paul office. As the young service evolved, he advanced, in 1957, to its position of maximum responsibility, Chief of the Livestock Division's Market News Branch.

In the intervening years, Mr. Smeby witnessed much that was new with market news and much that was new with the world.

Radio, for example, was still a curiosity to market news in the midtwenties. Mr. Smeby began a series of daily radio market news reports over the St. Paul-Minneapolis station WCCO, in 1926. These informal summaries continued through 1942.

And then there was the introduction of the "Beef Grading and Stamping Project" in May of 1927, when graders first stamped USDA Prime and Choice steer and heifer beef on request. In the first 2 months of the experiment, approximately 4,125,000 pounds of meat were graded and stamped. These grade stamps were to become an integral part of market news . . . and the "project" was here to stay.

Mr. Smeby also recalls the closing days of fiscal year 1933, when for "reasons of economy" the market news service was "almost wiped out." The threatening announcement brought a deluge of protest from livestock interests across the country. The result was a reassessment of the goals of the service, and a reaffirmation of its very definite benefits from those it was designed to aid.

From this reassessment, market news emerged stronger than before. And as it continued to expand and flourish, the South St. Paul office also continued as a leader in the service of reporting the cattle, hog, and sheep markets, as well as the veal, calf, and wool markets.

So a salute to the South St. Paul Livestock Market News office on its 50th anniversary this year. Over the years, its accomplishments have made an important contribution to the history of market news everywhere.

The author is Chief, Market News Branch, Livestock Division, C&MS, USDA.



Raisins coming into the packing plant (upper left) go over a "shaker" that removes stems and foreign materials. After the stems are removed and the raisins are sized, (lower left) they are thoroughly washed. Cleaned, sized, sorted and inspected for quality (right) the raisins are ready for packaging. Here they are being filled into 1-pound packages for distribution to needy families.

looking for a convenience food?



RIED FRUITS SOUND PRETTY old-fashioned in today's prepackaged world of easy-open, ready-to-eat, pop-up, needs-little-heating wonders. But don't discount this oldest method of food preservation.

Raisins, the most popular of the dried fruits, were among the earliest convenience foods. And they still are a convenience. You can eat them as is, store them without refrigeration, bake them in cookies, cakes, buns, or pies, cook them in sauces, or mix them in salads.

When you buy raisins, by the pound or snack box, you can be sure you're getting a product of good quality.

All raisins produced in the United States are inspected for quality by the U.S. Department of Agriculture. The Federal Marketing Order for raisins—a program established and operated by raisin growers and handlers to build stable, orderly markets—sets minimum standards of quality for raisins. Inspectors with the Fruit and Vegetable Division of USDA's Consumer and Marketing Service check the quality of raisins.

This high-energy fruit was one of the foods USDA distributed last year to needy families and school lunch programs.

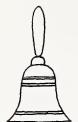
RY RASINS!



The USDA inspector (above) takes samples from the filling line to check for stems, maturity, moisture content, and defects. In inspection for defects, (upper right) each raisin in a half-pound sample is examined. The USDA inspector (lower right) spotchecks the condition of packages after the shipping containers are loaded in a rail car.







a school for the grain industry

By William T. Wisbeck

GROUP OF PEOPLE in Kansas huddle around a sample of heat-damaged wheat. In Missouri, another group looks intently at slides showing stink-bug damage in soybeans. A third group in Iowa listens to a lecturer explain a grading problem in corn.

These "students" are grain producers, merchandisers, and other members of the grain industry. They are attending special grading schools conducted by Extension agents or industry groups in cooperation with the Grain Division in the U.S. Department of Agriculture's Consumer and Marketing Service.

Since much of the grain traded in the U.S. is marketed on the basis of official U.S. grain standards, the industry has a vital interest in keeping up with changes in the standards and problems affecting grain quality.

Grain and feed dealers and trade associations request the schools when such changes or problems occur. In addition, schools are held annually in Kansas and Nebraska.

During the past 12 months, the Grain Division has helped conduct 43 grading schools attended by over 1,500 persons.

Behind every school lie many hours of preparation on the part of Grain Division specialists. Field offices gather working samples of each grain to be studied, including examples of high quality grain and specific examples of damaged grain.

In addition to grain samples, Grain Division standardization specialists prepare slides, and Extension agents develop publications, to show through word and picture specific grading problems.

Grain grading schools last from 2 hours to 2 days, depending on the complexity of the subject to be covered. A typical class runs for one day, and includes lectures, practical demonstrations on factors that are considered when grain is graded, and a written examination covering the official U.S. grain standards.

Many classes also include lectures and discussions on special items of interest, such as grain warehousing problems, freight rates, and State or Federal legislation of interest to the grain industry.

The schools are not intended to make one-day experts out of industry employees and others who receive the training. Inspectors licensed by C&MS to grade grain, for example, undergo months of intensive training before they can qualify.

But the schools do set the stage for assuring close Government-industry understanding of problems and changes affecting the vast grain industry.

The author is Chief, Grain Inspection Branch, Grain Division, C&MS, USDA.



THIS YEAR'S BUMPER-SIZE apple crop is rolling to market. And there's a different bright color and taste for everyone. Apples top the U.S. Department of Agriculture's list of plentiful foods for October. Canned applesauce and apple juice are also plentiful.

Pork is on the list, too—the first time in about 19 months that a popular red meat has appeared on the list. Housewives will find a bonanza of plentiful foods when they go shopping this month. Other foods listed include fresh potatoes, broiler-fryers, eggs, dry beans, onions, canned peaches, canned salmon, and dried prunes and prune products.

Teachers, Nutritionists, retailers, and consumer specialists have been using the U.S. Department of Agriculture's series of "How to Buy Food" leaflets for nearly 2 years as a good way to teach shopping skills.

Now a new tool has been published to help do the job even better.

A series of ten 15-by-20-inch posters in color, published by USDA's Consumer and Marketing Service, is designed to supplement the booklets in classrooms, retail stores, and consumer meetings.

The posters give simple shopping tips for five major food items: meat, dairy products, eggs, poultry, and fruits and vegetables. Official USDA grades are explained and the grade marks are illustrated.

Information on the posters is the same as on a table-top exhibit which C&MS developed for consumer meetings and Extension consumer specialists. More than 1,000 of the table-top exhibits were distributed, but requests for the panels far exceeded the supply available.

This prompted C&MS to have the

posters printed on plain poster paper, to provide a less expensive alternative to the silk-screened, heavy-board, table-top exhibits.

In their present form the light-weight posters are ideal for classroom instruction, for point-of-sale consumer education in retail stores, or for posting in any location where shopping information might be needed. If mounted on heavy cardboard, the posters can be converted into an attractive table-top exhibit suitable for meetings.

The ten-poster sets can be purchased from the Government Printing Office at \$1.75 a set. Order from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. A discount of 25 percent is given on orders of 100 or more sets.

Interested teachers, firms, or consumer groups who would like notification copies can get single sets free from USDA. Send a postcard to: Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please be sure to include your ZIP code.

An even dozen "How to Buy" leaflets are available for use in consumer education programs. Multiple copies should be purchased from the Government Printing Office at the price listed, but single copies are available free upon postcard request to USDA's Office of Information. Order from USDA by publication number. Give titles when ordering from GPO.

"How to Buy Beef Roasts" (G-146) 10 cents.

"How to Buy Beef Steaks" (G-145) 10 cents.

"How to Buy Butter" (G-148) 5 cents.

"How to Buy Canned and Frozen Vegetables" (G-167) 30 cents.

"How to Buy Cheddar Cheese" (G-128) 5 cents.

"How to Buy Eggs" (G-144) 5 cents.

"How to Buy Fresh Fruits" (G-141) 15 cents.

"How to Buy Fresh Vegetables" (G-143) 15 cents.

"How to Buy Instant Nonfat Dry Milk" (G-140) 5 cents.

"How to Buy Meat for Your Freezer" (G-166) 20 cents.

"How to Buy Poultry" (G-157) 5 cents.

"How to Buy Beans, Peas, and Lentils" (G-177) 25 cents. □

POSTER SET-UP TEACHES SHOPPING SKILLS









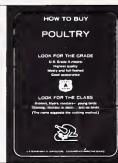












FRESH FRUITS AND vegetables offer unlimited potential for good and good-for-you meals and snacks. But even experienced shoppers are sometimes stumped at the produce counter.

Test your produce shopping knowhow with this true-false quiz from the U.S. Department of Agriculture's Consumer and Marketing Service.

Questions (True or False):

1. U.S. Extra Fancy apples are larger than U.S. Fancy apples.

2. "New" potatoes normally have some skin missing.

3. It's all right to buy hard or green peaches, because you can ripen them when you get them home.

4. Yellowing, wilted, or decayed tops do not affect the eating quality of green onions (scallions).

5. All fresh fruits and vegetables are inspected for quality (graded) by the U.S. Department of Agriculture.

6. The best buys of fresh fruits and vegetables can be made when they are in season.

7. If you buy tomatoes that aren't quite ripe, it's best to ripen them before you refrigerate them.

8. A special markdown on damaged fruits or vegetables can really mean a big saving.

Answers:

1. False. U.S. Extra Fancy and U.S. Fancy are grades established by

the U.S. Department of Agriculture to describe the quality of apples. U.S. Extra Fancy apples are of higher quality than U.S. Fancy, but apples of various sizes may be found in either grade.

2. True. "New" potatoes are marketed as soon as they are harvested and the skin usually is tender and not as well-set as that of potatoes which are stored before marketing.

3. False. Very firm or hard peaches with a distinctly green ground color (the basic color minus the blush) are probably immature and won't ripen properly. Buy peaches that are fairly firm or slightly soft, with a yellow or creamy ground color.

4. False. Yellowing, wilted, or decayed tops are indications that the edible portion of green onions may be flabby, tough, or fibrous. Choose green onions that have fresh, crisp, green tops. The white portion should extend 2 or 3 inches up from the root end.

5. False. Grading of fresh fruits and vegetables is a voluntary service provided by USDA's Consumer and Marketing Service. However, many packers have their fruits and vegetables graded by Federal or Federal-State inspectors as an aid in wholesale trading, and U.S. or similar State grades are sometimes shown on retail packages. Some produce must be

graded and labeled under State or Federal regulations.

6. True. When you buy in season, the quality is usually better and prices are more reasonable. Also, shop for produce on USDA's Plentiful Foods List. Each month USDA tells you through radio, television, and newspapers what foods are in best supply. These plentifuls are usually reasonably priced and a good choice for your menu planning.

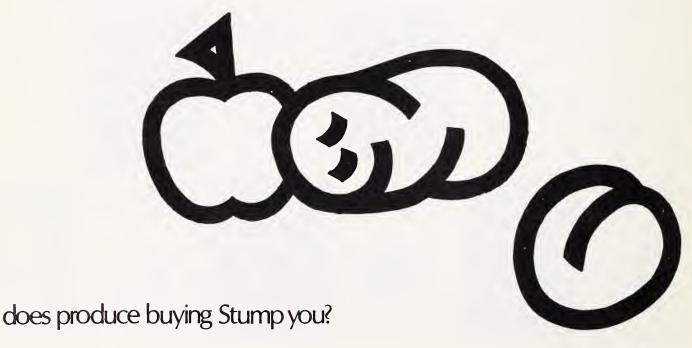
7. True. If you store tomatoes that aren't fully ripe in the refrigerator, the cold temperature may keep them from ripening later on. Let tomatoes ripen in a warm place and then re-

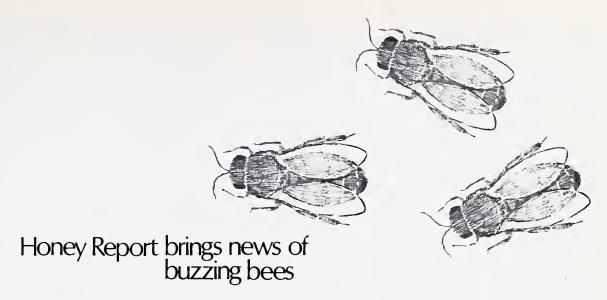
frigerate them.

8. False. It's penny-foolish to buy damaged fruits or vegetables, because even if you trim off decayed or bruised areas, the rest of the fruit or vegetable may be affected by deterioration anyway.

Any gaps in your produce knowledge?

If you'd like more information, write for a free copy of "How to Buy Fresh Fruits" (G-141) and "How to Buy Fresh Vegetables" (G-143), published by USDA's Consumer and Marketing Service. Send your post card request to Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please use your ZIP code.





both at making honey and pollinating fruit, seed and other crops—is the work of approximately 1,000 professional beekeepers in the United States.

Last year's honey crop of 283 million pounds was record large, returning to beekeepers almost \$50 million.

Honey comes in many colors and flavors. Color and flavor are determined by the floral source from which the bees collect nectar.

Predominantly light-colored, mild-flavored honey comes from varieties of clover, while the darkest and strongest flavor comes from buck-wheat. Other popular, distinctive flavors are derived from the nectar of citrus trees, tupelo, sage, basswood, and many other flowering plants.

After the honey is produced, it is labeled by floral source and shipped to market primarily in 60-pound cans or 55-gallon steel drums. About half of the honey is sold through brokers and cooperatives, while the remainder is sold by hobbyists and small producers at roadside stands.

Most of the honey offered for sale to consumers is extracted honey (liquid)—that which has been separated from the comb. A part of this is identified as to floral source, but much is not. Some is converted into creamed honey or honey spread—a fine-textured, crystallized honey.

Some honey is marketed in the comb and some as chunk style—chunks of comb honey packed in jars of liquid honey.

Prices for honey are generally determined by the supply and demand of the various floral sources and types. For example, honey produced from clover is especially popular and will usually be in greatest supply and demand. Orange blossom honey also has become a favorite with consumers.

To help producers, handlers and wholesalers market honey, the U.S. Department of Agriculture's Consumer and Marketing Service publishes the Monthly Honey Market News report.

Like the market news provided by the Federal-State Market News Service on major agricultural commodities, the aim of honey market news is to help producers, handlers, wholesalers and retailers decide where and when to sell or buy. The report is sent free each month to about 2,000 "honey interests" who request it.

Honey market news is compiled from questionnaires which are completed each month by about 300 beekeepers and handlers, giving weather, condition of bees, floral sources and market information for honey in their area.

These questionnaires are sent to USDA in Washington. Together with data from market news reporters in terminal markets, this information is compiled to present the entire national production and marketing picture each month.

The report lists the previous month's selling prices for honey—according to floral sources—at various producing points throughout the

country. Using this information, a beekeeper in California, for example, will know what floral sources are in greatest demand and the best prices available.

Bakers and confectioners also can use this information to know where to buy the flavor honey they need.

The report also provides information on sales by packers to wholesalers, retailers and consumers, according to type of honey. In this way both packers and distributors can keep abreast of supplies, demand and prices, and determine which types of honey will give them the best sales opportunities.

Included in the data on the New York City terminal market is information about both volume and prices of imported honey and beeswax.

Since many farmers depend on honey bees for pollination, some beekeepers have been able to lease their colonies for this purpose.

The effect of the honey bee on the farming industry is surprisingly large when all of the crops that they pollinate are considered. For example, apple producers—a 300 million dollar industry—depend upon the honey bee for pollination.

The bee industry has a great deal to buzz about. Not only does it produce a popular product, but it also provides a valuable service to the farming industry.

Honey market news in turn helps all segments of this important industry by providing information on which to base marketing decisions.











ode to the almond!

Workers (upper left) check blanched almonds carefully, removing any defective kernels. Unblanched split almonds (upper right) are also checked to remove any damaged or defective kernels. USDA inspectors (lower left) pull 1,500-gram samples for inspection and grading. Under the Federal-State continuous inspection service, (lower right) samples of almonds are tested for quality and uniformity of size. One of the many ways almonds are prepared for consumers is toasting. (Far right) Here the almonds are toasted in coconut oil until crunchy.

By Robert P. Rosko

ET'S SING AN ODE to the almond—a nut of little notoriety, but of large popularity.

The almond, dating back to the days of the old testament, has been satisfying our taste buds for years. For a tasty sweet we munch an almond candy bar and we enhance our gourmet tables with various types of food "almondine."

At Thanksgiving and Christmas, bowls of almonds in-the-shell are a family favorite. Countless is the number of Epicurean delights-cakes and tarts and delicate pastries-that are accented with a sprinkling of slivered or chopped almonds.

In 1769 the almond arrived in California with very little flourish. Brought by the Franciscan missionaries, it has remained solely a California crop ever since. Present-day U.S. production comes from over 300 improved varieties developed in California since 1875.

The California almond business is large and growing. Production figures this year are expected to be 8 percent higher than last year's. The industry hopes to export almost half of these almonds.

The California almond industry has been expanding into worldwide markets during the past several years. This reached an all-time high last year. Almost 61 million pounds (kernel-weight) were exported when Spain and Italy, both large almond-producing countries, had poor crops. U.S. growers now hope to maintain this high export level.

Principal customers for various types of California almonds are Canada, Japan, Sweden, Mexico, and West Germany.

A large part of the California almond crop is checked for quality by the Federal-State Inspection Service, a joint service of the U.S. Department of Agriculture's Consumer and Marketing Service and State Departments of Agriculture.

Almond packers who use this continuous inspection service, which is strictly voluntary, do so as an aid in quality control. Federal-State inspectors are stationed in a packing plant at all times, to make constant checks on the quality of the product, and packers who use this inspection service are bound to strict standards of quality.

Careful checking of almond quality begins when the almonds are delivered to the packer, most of them in 1,500-2,000 pound bulk containers. Several large packers have their own inspectors who check the in-shell almonds upon arrival. Then each grower is credited for his poundage, discounting defects.

At this point the almonds are stored and fumigated while awaiting processing. At its Sacramento processing plant, the California Almond Growers Exchange, for example, can store 800,000 pounds of in-shell almonds in each of 24 silos.

From the silos the almonds are moved to the "crackers," machines

that remove the shells and send the kernels on for cleaning. The almonds are next sorted automatically into sizes. In many packing plants an electric eye eliminates many of the kernels with defects, such as chips and scratches.

Depending on their final use, some of the almonds are now blanched (skins removed). But both blanched and natural almonds (those with skins on) go through the grading process. Plant workers at numerous grading lines look the almonds over carefully and remove any remaining defective kernels.

In plants using the Federal-State Inspection Service, inspectors take 1500-gram samples from time to time throughout the day from each of the grading lines. Some of the packers furnish the inspectors with expert quality control assistants. Under supervision of the inspectors, these assistants inspect the samples for quality and assign grades to each lot of almonds.

They also check the samples to assure uniformity in size. Almonds are sized on the basis of the number of almonds in each ounce of the sample (count per ounce) and their size in proportion to their weight.

The Federal-State inspectors check the work of the quality controllers so they can officially certify the quality of the almonds. Top-grade almonds (U.S. No. 1 or better) must be whole and meaty with few defects.

Packers blanch, roast, chop and sliver many of the shelled almonds in preparation for marketing. These almonds, which comprise a large part of the total production for domestic markets, are sent to salters, confectioners, bakeries, and ice cream manufacturers. A small percent of shelled almonds are destined for retail packages.

These plump, meaty and delicious nuts are very versatile and can be adapted for use in hundreds of recipes. It is assuring to know that Federal-State inspectors help to ensure continuing high quality.

The author is a standardization specialist, Fresh Products Standardization and Inspection Branch, Fruit and Vegetable Division, C&MS, USDA.





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